Power Schemes for Tamil Nadu

1932. SHRI K. V. THANGKABALU: Will the Minister of ENERGY be pleased to state: '

(a) whether some power schemes have been sanctioned during the last four years for implementation in Tamil Nadu; and

(b) if so, the names of the places where these schemes are likely *to,* be implemented?

I THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRI KALP-NATH RAI): (a) and (b) The required information is given below:—

Name of the Project	Location (District)
1. Tuticorin stige III (Therm'1) (2x210 MW) . . .	Tuticorin
2. North Madr-.s CRP (Thermal) Stage I (3x210 MW) .	Madras
3. Pylora Ultimate Stage (hydro) (3x50 MW) . . .	Nilgiris
4. S.thmur Dam (Hydro) (2x 7.5 MW) . . .	North Arcot
5. Lower Bhiwani Dam (Hydro) R.B.C. (2x4 MW) .	Coimbatore

Wind power units in Bangalore

1933. SHRI RAM AWADHESH SINGH: Will the Minister of ENERGY be pleased to state:

(a) whether it is a fact that imported wind power units were installed by Government at the Imperial Dairy Research Institute Audugodi, Bangalore and Agriculture College, Hebbal, Bangalore some 55 years ago, for trial;

(b) if so, what are the results of trials conducted and experience gained thereby; and

(c) whether these units are performing well at present?

THE MINISTER OF ENERGY (SHRI VASANT SATHE): (a) to (c) Information on installation of imported wind power units at the two institutions in Bangalore, 55 year ago, is not available.

However, it is reported that one wind mill was installed at the Southern Regional Station of National Dairy Research Institute, Bangalore in 1965 by National Aeronautical Laboratory. The windmill was not found suitable in that location.

Use of alcohol as fuel

1934. SHRI RAM AWADHESH SINGH: Will the Minister of ENERGY be pleased to state:

(a) whether DNES had conducting re search into prospects of using alcohol as a substitute of fuel as part of a national policy as indicated at a National Work shop at Dehradun on November 5, *1984* and reported in the Statesman of Novem ber 6, 1984; and

(b) if so, what is the present position of the project?

THE MINISTER OF ENERGY (SHRI VASANT SATHE): (a) Yes, Sir.

(b) Research is being conducted into prospects of using methanol and ethanol as substitute fuel. The Department of Non-Conventional Energy Sources has also been investigating the suitability of petro-crops for alternative liquid hydro carbon materials. Studies 'have been made on 54 potential petro-crops and hydro cracking of the same has also been undertaken. Samples are characterised in terms of gases, naptha, kerosene gas oil and water. These studies clearly indicated the feasibility of obtaining petroleum, hydro carbons from petro-crops. Research in bio-technology is also being directed to evolve more efficient processes for conversion of cellulose to alcohol.

The studies indicated that in the Indian situation methanol gives possibilities of